IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Currently Amended) A method of determining a distance between a first device and a second device, comprising,

at the first device,

transmitting a signal comprising simultaneous first and second components, wherein the first component comprises a repeated first code and the second component comprises a repeated second code and the first and second codes are of unequal duration, wherein the first component is frequency or phase modulated onto a carrier forming a direct sequence spread spectrum (DSSS) signal and the second component is amplitude modulated and occupies nulls in the DSSS signal, and

at the second device:

receiving the signal;

detecting the first and second codes; determining from the detected first and second codes respective first and second indications of the distance;

comparing the first and second indications of the distance;

generating a third indication of the distance in response to the first and second indications of the distance being equal within a predetermined tolerance, and

initiating an alarm if the third indication of the distance is above a predetermined threshold value.

2.(Currently Amended) ~~A~~ The method as claimed in claim 1, wherein the respective durations of the first and second codes are proportional to respective numbers having a relative prime relationship.

3.(Currently Amended) ~~A~~ The method as claimed in claim 1, further comprising transmitting the signal from the second device and at the first device receiving the signal transmitted from the second device, wherein the transmitting at the first device

comprises retransmitting the signal received from the second device.

4. (Currently Amended) ~~A~~ The method as claimed in claim 1, wherein at least one of the first and second indications of distance is an indication of time of flight of the signal.

5. (Currently Amended) A system for determining distance ~~comprising~~ comprising:

a first device having

means for transmitting a signal comprising simultaneous first and second components, wherein the first component comprises a repeated first code and the second component comprises a repeated second code and the first and second codes are of unequal duration, wherein the first component is frequency or phase modulated onto a carrier forming a direct sequence spread spectrum (DSSS) signal and the second component is amplitude modulated and occupies nulls in the DSSS signal, and

a second device having

means for receiving the signal,

means for detecting the first and second codes, means for determining from the detected first and second codes respective first and second indications of the distance, means for comparing the first and second indications of the distance, and

means for generating a third indication of the distance in response to the first and second indications of the distance being equal within a predetermined tolerance.

6. (Currently Amended) ~~A~~ The system as claimed in claim 5, wherein the respective durations of the first and second codes are proportional to respective numbers having a relative prime relationship.

7. (Currently Amended) ~~A~~ The system as claimed in claim 5, the second device further comprising means for generating and transmitting the signal, and the first device further comprising means for receiving the signal transmitted by the second device and wherein the means for transmitting is coupled to retransmit the signal received from the second device.

8. (Currently Amended) ~~A~~ The system as claimed in claim 5, wherein at least one of the first and second indications of distance is an indication of time of flight of the signal.

9. (Currently Amended) A device for determining distance, ~~comprising~~ comprising:

means for receiving a signal comprising simultaneous first and second components, wherein the first component comprises a repeated first code and the second component comprises a repeated second code and the first and second codes are of unequal duration, wherein the first component is frequency or phase modulated onto a carrier forming a direct sequence spread spectrum (DSSS) signal and the second component is amplitude modulated and occupies nulls in the DSSS signal,

means for detecting the first and second codes,

means for determining from the detected first and second codes respective first and second indications of the propagation distance of the signal,

means for comparing the first and second indications of the propagation distance, and

means for generating a third indication of the propagation distance in response to the first and second indications of the propagation distance being equal within a predetermined tolerance.

10. (Currently Amended) A The device as claimed in claim 9, comprising means for generating and transmitting the signal.

11. (Currently Amended) ~~A~~ The device as claimed in claim 10, wherein the respective durations of the first and second codes are proportional to respective numbers having a relative prime relationship.

12. (Currently Amended) A device suitable for use in use in a system for measuring distance, comprising means for generating and transmitting a signal comprising simultaneous first and second components, wherein the first component comprises a repeated first code and the second component comprises a repeated second code and the first and second codes are of unequal duration, wherein the repeated first code is generated by a first linear feed-back shift register and has a first length of N1, and the second code is

generated by a second linear feed-back shift register and has a second length of N2, and wherein $N1=2^{M}-1$ and $N2=2^{M+1}-1$, M being a number of stages of the first linear feed-back shift register and M+1 being a number of stages of the second linear feed-back shift register.

13. (Currently Amended) ~~A~~ The device as claimed in claim 12, wherein the respective durations of the first and second codes are proportional to respective numbers having a relative prime relationship.

14. (Currently Amended) ~~A~~ The device as claimed in claim 12, wherein the means for generating and transmitting the signal comprising simultaneous first and second components further comprises means for multiplying the first component by an in-phase local oscillator signal, means for multiplying the second component by a quadrature-phase local oscillator signal, and means for summing the resulting products.

15. (New) The method of claim 1, wherein the repeated first

code is generated by a first linear feed-back shift register and has a first length of N1, and the second code is generated by a second linear feed-back shift register and has a second length of N2, and wherein $N1=2^{M}-1$ and $N2=2^{M+1}-1$, M being a number of stages of the first linear feed-back shift register and M+1 being a number of stages of the second linear feed-back shift register.

16. (New) The system of claim 5, wherein the repeated first code is generated by a first linear feed-back shift register and has a first length of N1, and the second code is generated by a second linear feed-back shift register and has a second length of N2, and wherein $N1=2^{M}-1$ and $N2=2^{M+1}-1$, M being a number of stages of the first linear feed-back shift register and M+1 being a number of stages of the second linear feed-back shift register.

17. (New) The device of claim 9, wherein the repeated first code is generated by a first linear feed-back shift register and has a first length of N1, and the second code is generated by a second linear feed-back shift register and has a second length of N2, and wherein $N1=2^{M}-1$ and $N2=2^{M+1}-1$, M being a number of stages of

the first linear feed-back shift register and M+1 being a number of stages of the second linear feed-back shift register.

18. (New) The device of claim 12, wherein the repeated first code is generated by a first linear feed-back shift register and has a first length of N1, and the second code is generated by a second linear feed-back shift register and has a second length of N2, and wherein $N1=2^{M}-1$ and $N2=2^{M+1}-1$, M being a number of stages of the first linear feed-back shift register and M+1 being a number of stages of the second linear feed-back shift register.